

Remarks

Applicant has filed an RCE with this amendment in response to the Office Action dated March 14, 2003. Claims 20-22, 24, 26, and 32 have been amended. Claims 1-19 and 27-31 have been canceled without prejudice. New claims 38-59 have been added. Claims 20-26 and 32-59 are currently pending. Reexamination and reconsideration are respectfully requested.

Claims 1-5 and 7-19 have been canceled without prejudice to further prosecute these claims at a later date. Claim 6 and 27-31 were previously canceled without prejudice.

Applicant thanks the Examiner for indicating that claims 24-25 would be allowable if rewritten in independent form. Applicant has rewritten claim 24 in independent form. Claim 25 depends from claim 24. Applicant has also amended claims 20-22 and 26 to depend from claim 24. Applicant also notes that claim 23 depends from claim 22. Thus, claims 20-23 and 25-26 now depend (either directly or through another claim) from claim 24.

Claims 1, 3-5, 14-15, 18 and 32 were rejected under 35 U.S.C. 102(e) as unpatentable over U.S. Patent No. 6,165,854 to Wu. The rejection is respectfully traversed. As noted above, claims 1, 3-5, 14-15 and 18 have been canceled without prejudice. Regarding claim 32, applicant respectfully submits that the Examiner cited no portion of the art describing or suggesting a method including "forming a well region between a first trench and a second trench of the plurality of trenches, wherein the first trench is adjacent to the second trench, and wherein the well region is formed to extend continuously in the semiconductor layer from the first trench to the second trench" as recited in claim 32, as amended. Applicant notes that the Examiner's citation to source and drain regions shown in Wu does not appear to describe a well region "formed to extend continuously in the semiconductor layer from the first trench to the second trench." Accordingly, for at least the above reason, applicant respectfully requests that the rejection of claim 32 be withdrawn.

Claims 2, 13, and 16-17 were rejected under 35 U.S.C. 103(a) as unpatentable over Wu. Claims 1 and 7-10 were rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 5,950,090 to Chen et al. ("Chen"). Claims 11-12 were rejected under 35 U.S.C. 103(a) as unpatentable over Wu in view of U.S. Patent No. 6,087,243 to Wang.

Claims 19 and 21 were rejected under 35 U.S.C. 103(a) as unpatentable over Chen. The rejection is respectfully traversed. Claim 19 has been canceled without prejudice. Claim 21 has

been amended to depend from claim 24, which was indicated as being allowable if rewritten in independent form, which it has been. Accordingly, for at least the same reasons as claim 24, applicant respectfully submits that the rejection of claim 21 should be withdrawn.

Claims 19-20 and 22-23 were rejected under 35 U.S.C. 103(a) as unpatentable over Chen in view of Wang. The rejection is respectfully traversed. Claim 19 has been canceled without prejudice. Claims 20 and 22 have been amended to depend from claim 24, which was indicated as being allowable if rewritten in independent form, which it has been. Claim 23 depends from claim 22. Accordingly, for at least the same reasons as claim 24, applicant respectfully submits that the rejection of claims 20 and 22-23 should be withdrawn.

Claim 26 was rejected under 35 U.S.C. 103(a) as unpatentable over Chen in view of Wu. The rejection is respectfully traversed. Claim 26 has been amended to depend from claim 24, which was indicated as being allowable if rewritten in independent form, which it has been. Accordingly, for at least the same reasons as claim 24, applicant respectfully submits that the rejection of claim 26 should be withdrawn.

Claims 32-34 were rejected under U.S.C. 103(a) as unpatentable over Chen. The rejection is respectfully traversed. Applicant respectfully submits that the rejection of claim 32 should be withdrawn for at least similar reasons as discussed earlier for this claim. Applicant notes that the Examiner's citation to source and drain regions 228 shown in Chen does not appear to describe a well region "formed to extend continuously in the semiconductor layer from the first trench to the second trench." Accordingly, for at least the above reasons, applicant respectfully requests that the rejection of claim 32 and its dependent claims 33-34 be withdrawn.

Claim 35 was rejected under 35 U.S.C. 103(a) as unpatentable over Chen as applied to claim 34 and further in view of Wu. The rejection is respectfully traversed. Applicant respectfully submits that the Examiners citation to Wu does not overcome the deficiencies of Chen as discussed above for claim 32, from which claim 35 depends. Accordingly, for at least the above reasons, the rejection of claim 35 should be withdrawn.

Claims 36-37 were rejected under 35 U.S.C. 103(a) as unpatentable over Chen and Wu as applied to claim 35 and further in view of Wang. The rejection is respectfully traversed. Applicant respectfully submits that the Examiners citation to Wu does not overcome the

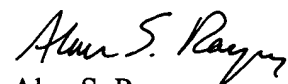
deficiencies of Chen discussed above for claim 32, from which claims 36 and 37 depend. Accordingly, for at least the above reasons, the rejection should be withdrawn.

The Office Action also included various comments concerning the art and the non-patentability of features in various of the pending claims. Applicants respectfully disagree with the Examiner's non-patentability conclusions. Applicant also notes that the Examiner appeared to justify certain combinations and modifications with general statements such as "it depends on the electrical characteristic of device" and "it depends on the desired dielectric constant of the dielectric layer." Applicant does not understand the basis for such statements and respectfully submits that such statements do not rise to the level of establishing a suggestion in the art for the modifications or combinations suggested by the Examiner. Applicant further notes that the Examiner's comments in the Office Action that have not been specifically discussed above are deemed moot at this time in view of this response.

New claims 38-59 have been added. Support for these claims may be found throughout the specification and the original claims. It is believed that no new matter has been entered. Examination of the new claims is respectfully requested.

Applicant respectfully submits that the pending claims are in patentable form. Reexamination and reconsideration are respectfully requested. If, for any reason, the application is not in condition for allowance, the Examiner is requested to telephone the undersigned to discuss the steps necessary to place the application into condition for allowance.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 16, 2003.


Alan S. Raynes

June 16, 2003
(Date)